CLAIMS

1.-39. (canceled)

40. (previously presented) An implantable medical device comprising:

an input adapted to receive a blood flow signal representing a velocity of blood flowing through a coronary sinus of a patient's heart;

an input adapted to receive a sensed signal representing electrical activity within the patient's heart;

alarm circuitry operatively coupled to the blood flow signal and the sensed signal;

alarm means for alerting the patient to the presence of a potentially deleterious physiologic condition, wherein the potentially deleterious physiologic condition comprises one of a myocardial infarction and a coronary artery thrombosis; and

a microcomputer circuit configured to activate the alarm circuitry to thereby activate the alarm means as a function of the blood flow signal and the sensed electrical activity signal,

wherein the blood flow signal is derived from one of an electrochemical Doppler sensing apparatus and an ultrasonic Doppler sensing apparatus.

41. (previously presented) The device of claim 40, wherein the microcomputer circuit is configured to compute a numerical ~~mathematical~~ integral value of at least one of the blood flow signal and the sensed electrical activity signal.

42. (original) The device of claim 41 further including a digital controller/timer circuit configurable by the microcomputer circuit to output pacing stimuli as a function of the blood flow signal and the sensed electrical activity signal.

43. (new) A device according to claim 41, wherein the alarm means for alerting the patient comprises a notification regimen that is triggered upon crossing of a trigger point and wherein the trigger point comprises one of a programmable flow rate threshold measured in milliliters per minute and a programmable percentage drop in a temporal trend of the potentially deleterious physiologic condition.

44. (new) A device according to claim 41, wherein the alerting means is triggered upon the detection of both a decrease in the blood flow signal of approximately twenty-five percent (25%) and wherein the sensed electrical activity signal indicates an elevation of the S-T segment of the sensed electrical activity.